

OCTOBER FARM WORK.

Selections From Col. J. B. Killerbrew's Department of Practical Suggestion in the Southern Farm Magazine.

The final preparation for the sowing of wheat should begin with the month. Land that has been fallowed during the summer, and especially a clover ley, must be harrowed frequently, or what is better, double-disked until the surface becomes like garden mold. The condition of the soil at the time the wheat is sown is all-important. Cloddy land or land that is filled with undecayed vegetation or land not well drained is totally unfit for the growing of wheat. First of all, the drainage of the land must be attended to. If there is a surplus of moisture in the soil the winter freezes will upheave the wheat plant and leave it high and dry upon the surface. Tillage is the best manure. It unlocks the fertility of the soil and gives a wide pasture ground in which the roots may range in search of nourishment for the plant.

PREPARE WHEAT LAND WELL.

The low yield all over the Southern States is due mainly to the poor preparation of the soil. If sown after cotton it often happens that only cultivators are used between the rows to cover the seed; if sown upon tobacco lands the harrow is too often the only implement used in the seeding of the crop; if on a clover fallow only one harrowing is given to the land before the drilling of the wheat begins.

Not only should the soil be reduced to a fine mold, but it should be rolled so as to compact the surface to some extent and pulverize the clods. The oftener wheat land is worked, other things being equal, the greater the yield.

As to the depth to which wheat land should be plowed depends very much upon the nature of the soil. A heavy clay soil should be stirred to the depth of six or eight inches, so as to throw the water table below the surface roots. There are two sets of roots to the wheat plant—the tap root, that the grain in germinating sends downward to the depth of several inches, and the surface roots that are thrown out from the crown and feed within a few inches of the surface. The water table should never be reached by the surface roots, for under such conditions the wheat plant will sicken, turn yellow and yield but little, if any, grain. On land naturally porous the depth of plowing may be lessened, but even in this case good drainage is highly important. It frequently happens that porous soils become water-soaked in winter, and in such a case the wheat plant is upheaved and winter-killed.

FERTILIZATION

The fertilization of the wheat crop, except on very fruitful soils, is now almost universally practiced. A clover fallow is probably most abundantly supplied with those elements of nutrition best suited to the wheat plant. The late John B. McEwen of Tennessee, for many years one of the largest and most success-

ful wheat-growers in the South, believed that no land is so well fitted for growing a good wheat crop as a clover fallow. He says to make the wheat crop remunerative, according to his experience, nothing answers the purpose so well as the clovering of the lands. A man engaged in threshing wheat in Middle Tennessee says that in threshing 100,000 bushels during one summer he never struck a clover-sod field that did not yield more than twenty bushels to the acre. On land equally as good, where wheat followed corn, the yield rarely exceeded ten bushels to the acre. Wheat following wheat on a clover sod does as well for three successive crops as at first, when the land is in good tilth. Wheat following wheat, says Mr. McEwen, will yield better after the first crop for five years, but will rarely come up to the succession of crops following clover.

Wheat sown on a pea fallow will do almost as well as upon a clover fallow. The depth to which the clover roots penetrate the soil as compared with the depth reached by the roots of the peas gives a subsoil treatment that the land does not receive to the same extent with the roots of the peas. Nevertheless both add greatly to the content of nitrogen in the soil, which is essential to the growth and development of the wheat plant. In all the wheat-growing sections of the South, where nothing but winter wheat is sown, the practice now is to sow with the wheat from 200 to 400 pounds of the superphosphate of lime, in which there is from 3 to 4 per cent of potash and about an equal percentage of ammonia, and 13 per cent of available phosphoric acid. These fertilizers differ widely in their constituent elements, but all three of the ingredients named are necessary.

Stable manure should never be applied unless it is thoroughly pulverized, and it should be plowed under during the month of September, or even earlier. No fertilizers should be applied to a wheat field that are not easily and quickly assimilated by the wheat plant. Lime is an important application for wheat land. It is thought to prevent rust and an undue growth of straw, while it assists in filling out the grain.

SELECTION OF SEEDS

Nothing but the best seed should be sown. The largest, plumpest grains should be separated from the small and shriveled or partially-decayed ones. Deterioration in the berry may as surely be brought about by sowing inferior grain as deterioration in animals by breeding from scrubby stock. A screen that will separate the best grains from the worst should always be used in preparing the seed. After this is done the seed should be soaked in a solution of the sulphate of copper, or what will do equally as well, sprinkled with a strong solution made by using three gallons of boiling water to one pound of the sulphate of copper. When cooled, sprinkle this slowly over a pile of ten bushels of

wheat and stir until two gallons or more of the saturated solution have been absorbed by the wheat. This treatment is a sure preventive against the occurrence of smut, a fungous disease that will damage the grain almost to a point below a commercial value.

VARIETIES TO SOW.

Rust is the greatest enemy to the wheat plant in the South. It rarely attacks the wheat until about the 10th of June, but it does its damage in a very few days. To avoid this danger early varieties only should be sown. Among those most highly commended are the Fultz, Walker, Rice and Yellow Lamas, the latter being the earliest to ripen. The Fultz is a comparatively new variety produced by fertilizing the flower of the Fultz with the Lancaster. It is a very prolific wheat, but often fails. The white varieties, though beautiful in appearance, have been discarded because of the thinness of the grain husk, which makes these varieties sprout quickly in the shock.

Wheat should become a leading crop in every State in the South. To provide breadstuffs and provisions in sufficient quantity for home consumption will enable the planters to lay aside a large proportion of the money derived from the growing of cotton and tobacco. A few acres only of wheat should be sown at first until the experience of the planter shall determine the best variety for the locality and for the soils. Every cotton and tobacco planter has it in his power to become a money-lender instead of a money-borrower, and to the attainment of this high end every effort should be made, and nothing will aid more in its accomplishment than the growing of the bread grains and the raising of provisions.

DIGGING SWEET POTATOES

The latter part of October, when the ground is dry, is the most favorable time for digging sweet potatoes in the northern tier of the Southern States, but in the Gulf States they are rarely dug until the last of November. This edible root is growing very rapidly in popularity, and large quantities are now shipped with other vegetables to the Northern markets, where they command good prices and ready sales. The sweet potatoes of the South are far more sugary than those grown in a higher latitude, and to this quality may be attributed their growing popularity.

It has always been a difficult matter with many sweet-potato growers to keep the tubers through the winter. Sweet potatoes are very sensitive to both cold and heat and cannot be kept sound where there is a high degree of humidity. In the extreme Southern States they are easily kept by being banked in the open field in conical piles, with a covering of dirt over which an open shed is built. During a dry winter, and one in which the cold is not very severe, this method often proves successful in the States further north, but it is a rare occurrence that they come out sound. A good, dry cel-

lar, with equable temperature, where the heat never rises above 70 degrees and rarely goes below 50 degrees, will keep sweet potatoes the year round. A fatal error is often committed in very cold weather by heaping great layers of straw or shucks from the corn over potatoes. This covering will often generate heat sufficiently high to produce decay. A few blankets or other thin covering put over the potatoes stored in a cellar will preserve them free from rot when a thicker covering would destroy them.

Last Week's North Carolina Crop Bulletin

The past week has been very dry with practically no rain whatever except a very small amount at a few widely separated places. The drought is injuring all late crops considerably, especially turnips, fall Irish potatoes, crimson clover and early seeded rye and wheat. Small streams are low, and there is a scarcity of water in some sections. The temperature was slightly above normal, as the days were moderately warm; the nights were generally cool, and some frost occurred in the mountains. While the lack of moisture is affecting late seeded crops adversely, and the ground has become too hard and dry for the continuation of fall plowing, otherwise conditions were very favorable for gathering matured crops and for all farm work. Very little plowing has been done, and only small quantities of winter wheat and oats were seeded during the week.

Cotton is opening very rapidly, with weather conditions favorable for picking, which is progressing rapidly; the cool nights have injured the top crop; in many fields in the south cotton is all open; the estimate is that nearly half the cotton has already been picked, and the yield is undoubtedly short. Gathering late corn has advanced well; some late corn has been injured by lack of sufficient moisture. Tobacco has all been safely housed, except in a few sections in the northwestern part of the State. Digging peanuts and sweet potatoes are under way, with fairly good yields. Most of the peavine hay crop, nearly all of the fodder and other forage crops have been housed under favorable conditions. Clover and turnips are being much injured by drought. Some wheat and oats were seeded during the week, but cannot come up without rain. Forest fires are reported in the northeast part of the State.

As the staple crops are now practically beyond the influence of weather conditions, this is the last crop bulletin for the season of 1903.

The cover of the The Pilgrim for October, while a wide departure from the usual pictorial cover, being a modeled design, is none the less attractive and exceedingly artistic. The October issue in considerable degree seems to give a foretaste of the excellence of the numbers to follow. The chief feature of the contents is the first chapter of a new life of Jefferson Davis. The author of this "Real Jefferson Davis" is Landon Knight, and in this biography will be found his best work.